
South Dakota Extended Content and Alternate Academic Achievement Descriptors for Students with Significant Cognitive Disabilities

Math Introduction



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Special Education Programs Mission Statement

Special Education Programs located in the South Dakota Department of Education advocates for the availability of the full range of personnel, programming, and placement options, including early intervention and transition services, required to assure that all individuals with disabilities are able to achieve maximum independence upon exiting from school.

Acknowledgements

The revised South Dakota Extended Content and Alternate Academic Achievement Descriptors for Students with Significant Cognitive Disabilities are a result of the contributions of many educators from across the state. Many hours of collaboration were devoted to ensure the Extended Content would be appropriate for students of all ability levels. The Extended Content committee members represent the many concerned individuals across the state dedicated to their profession and to high quality standards for South Dakota students with disabilities. The Extended Content would not have been possible without their contributions. The South Dakota Department of Education wishes to express appreciation and gratitude to the individuals and the organizations they represent who contributed expertise and time to write the Extended Content.

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To download the Extended Content, visit the SD Department of Education website at <http://doe.sd.gov/contentstandards/>

For further information or questions concerning the Extended Content, contact the Special Education Programs at 605-773-3678.

Overview of South Dakota Academic Standards

The South Dakota academic content standards provide a listing of essential core content to be taught and learned. The content and achievement standards are designed to guide the planning of instruction and to anchor the assessment of learning from kindergarten through twelfth grade. Performance descriptors bridge the content standards to assessments of the standards, provide information to teachers and students regarding student progress toward mastery of the standards, and give them specific targets for instruction and learning. The academic standards document presents a starting point for informed dialogue among those dedicated and committed to quality education in South Dakota. By providing a common set of goals and expectations for all students in all schools, this dialogue will be strengthened and enhanced.

All South Dakotans are eager to ensure that graduates of South Dakota's public schools have the knowledge, skills, and competencies essential to leading productive, fulfilling, and successful lives as they continue their education, enter the workforce, and assume their civic responsibilities.

The Standards Committee revised the current South Dakota Content Standards and Performance Descriptors utilizing input from students, parents, teachers, and South Dakota communities. Final documents evolved from: recent research in best practices, **No Child Left Behind** legislation, and classroom experience with existing South Dakota Content Standards, evolution of published standards from other states, numerous professional publications, and lengthy discussions by experienced K-16 South Dakota teachers.

OVERVIEW EXTENDED CONTENT

South Dakota first established content standards for students with disabilities in 2000, meeting the requirements of IDEA. These Functional Standards were implemented during the 2000-01 school year and assessed using the state's alternate assessment. The Functional Standards were revised in the spring of 2004 to meet NCLB requirements and were renamed as Extended Standards. The South Dakota Board of Education (SDBOE) approved the Extended Standards in September 2004 and districts implemented them immediately during the 2004-05 school year. These standards were written broadly to encompass grades K-12 for both reading and math content standards.

As guidance and regulations became available concerning alternate academic achievement standards, SD DOE realized the need to establish the Extended Content by grade level, linking them to grade-level content. The Extended Standards were revised during the winter of 2005 to establish Extended Content for each grade K through 12 for reading and for math at grades K-8 and at grade spans for grades 9-12. These standards were presented to the SDBOE for the first hearing in March 2005 as South Dakota Extended Content and Alternate Academic Achievement Descriptors for Students with Significant Cognitive Disabilities and were posted on the state's website and disseminated for public comment prior to the Board meeting in May. Revisions

were made to the draft document based upon recommendations from stake holders and the final version of the Extended Content was presented to the SDBOE on May 17, 2005 and approved. Districts will implement the revised Extended Content during the 2005-2006 school year.

The Department of Education selected a diverse group of educators to develop extended content and achievement (performance) descriptors for application to the education of students with significant cognitive disabilities. The workgroup, charged with the task of developing the Extended Content and Alternate Academic Achievement Descriptors, used the South Dakota academic content standards as a reference document when developing the Extended Content. The goals and indicators come directly from the South Dakota content standards. The Extended Content and Alternate Academic Achievement Descriptors are written for each grade ranging from Kindergarten to Grade 12 for reading and at grades K-8 and at grade spans for grades 9-12 in math.

When developing the Extended Content, the workgroup carefully divided the skills into four levels of complexity: advancing, applying, developing, and introducing. Each level of complexity was used as a guide and the student's age appropriate environment was considered. The categories range on a scale of more complex to less complex skills. Alternate Academic Achievement Descriptors are organized into performance levels. These levels describe how a student at that level would be expected to perform on the Extended Content.

Alternate Academic Achievement Descriptors and target skills were developed for each performance level and for each grade. Target skills developed in the context of grade level curriculum and serve as entry points to the Extended Content. These skills were developed to provide a tool for students to work towards the Extended Content and examples represent some possible activities or skills instructors could use in teaching the Extended Content. **Target skills and examples are not provided when the meaning of the Extended Content should be evident to the reader.** These entry points provide a range of options at which a student with a disability can access the learning standards. The skills found in the Extended Content and Alternate Academic Achievement Descriptors introduce students to challenging new ideas and content, promoting movement to grade level standards.

Training for educators will assure all children have access to the South Dakota content standards through the Extended Content and Alternate Academic Achievement Descriptors. Educators will be trained in the correct use of target academic skills with emphasis on how the skills should be taught in the context of grade level curriculum. Educators will be trained to align South Dakota curriculum with the Extended Content and Alternate Academic Achievement Descriptors and to incorporate them when developing Individual Education Plans (IEPs). Upon completion of training, participants will be able to describe the components of South Dakota's Extended Content and Alternate Academic Achievement Descriptors and their relationship to the South Dakota content standards, incorporate the Extended Content into the IEP process, implement the Extended Content through instruction, and understand the implementation requirements of the alternate assessment.

What is Extended Content?

Many students with disabilities are able to work toward the content standard goals. However, the standards, as developed, do not appropriately address the educational needs of all students. Therefore, Extended Content has been developed to meet individual student needs.

The Extended Content expands the developmental spectrum of the South Dakota content standards. This allows all students the opportunity to access the general education curriculum.

The Extended Content is:

- ❖ a user-friendly guide in assisting with IEP development
- ❖ a progression of skills necessary for independent functioning (birth through age 21)
- ❖ academically based (presently in reading and mathematics)
- ❖ based on (parallel) the state academic content standards

The South Dakota Academic Content Standards together with the Extended Content and Alternate Academic Achievement Descriptors create a statewide system designed to support students, parents, teachers, and schools to uniformly promote high academic standards for all students in South Dakota.

Who will use the Extended Content?

The following are guidelines to assist the IEP team in determining which students will be instructed and assessed using the Extended Content and Alternate Academic Achievement Descriptors.

- ❖ Even with modifications and accommodations, the general education standards are deemed inappropriate for the student's cognitive ability and adaptive skill levels.
- ❖ The student requires extensive direct instruction in multiple settings to apply and transfer skills.
- ❖ The student requires substantial adjustment to grade level content standards.
- ❖ A student is not eligible to use the Extended Content if the primary reason for consideration is the result of extended absences, visual, auditory or physical disabilities, social, cultural or economic differences.

Students with disabilities must participate in the statewide assessment in order to measure their performance of content found in the State's Content Standards/Extended Content. This means students with disabilities that are working in the general academic content standards will take the

Dakota STEP with or without accommodations. Students working in the Extended Content will take the alternate assessment, **Dakota STEP – A**.

How does the IEP team use the Extended Content?

Once the IEP team determines what Extended Content is appropriate for a student, the team discusses the relationship of grade level standards to the Extended Content appropriate for the student:

- ❖ to determine the impact on curriculum and instruction
- ❖ to use Extended Content as a basis for the development of the individualized education plan

Educators will use the Extended Content document to align and develop instruction for students who will participate in the alternate assessment aligned to Extended Content, as determined by the IEP team. This document's Extended Content and target skills identify how and at what level of complexity students will address and attain learning standards. Educators can set realistic and challenging academic goals for individual students aligned with the general content standards. The Extended Content encourages teachers to reach for higher levels of achievement for their students.

As a reader becomes familiar with this document, they will discover the goal statements and indicators are retained from the South Dakota academic content standards. Extended Content is referenced by grade levels **for Kindergarten through Grade 12 for reading and for grades K-8 and High School Core in math, mirroring the design of the academic content standards**. Extended Content is intended to capture the “essence” of the South Dakota general education content standards. Target skills under Extended Content provide “entry points” towards attaining the Extended Content.

“Entry Points” to the Extended Content

Target skills can be viewed as entry points of student performance related to the Extended Content. These “entry points” provide a range of options at which a student with a disability can access the learning standard at a challenging level. These "entry points" are a tool to be used by educators and parents to identify instructional goals and objectives for the student. Target skills are listed under Extended Content and represent what a student might do at that particular grade level.

Target skills are defined as higher level skills that enable students with disabilities to individually utilize the Extended Content in order to demonstrate a link to the South Dakota Content Standards.

Using target skills in the context of academic instruction benefits students in the following ways:

- Allows students access to the general education standards
- Introduces students to challenging new ideas and content

- Provides new opportunities to practice skills in a variety of settings using a range of instructional approaches
- Achieves outcomes that exceed expectations

Target skills are aligned to the Extended Content. The Extended Content is aligned to the general education goals/strands and indicators. Target skills allow the student with a severe disability to gain access to the general curriculum.

An IEP team can use the target skills as examples when determining the skill a student needs to work on to progress towards the Extended Content. The target skill allows the student to work toward Extended Content that is the basis for the assessment of the student with a severe disability. This allows the student to gain access to the general curriculum.

*In other words, the IEP team can use the Extended Content and the target skills, under each indicator to determine **where the student is** at the beginning of the school term, **where the student may reasonably be taken through instruction** during the school term, and thus **determines the assessment item for progress reporting and assessment reporting.***

Alternate Academic Achievement Descriptors

Extended Content and Alternate Academic Achievement Descriptors have been established for reading and math. The Department of Education received approval by the State Board of Education in May 2005. Academic achievement standards consist of three components: achievement levels, achievement descriptors, and cut scores. Definitions of alternate achievement levels are expressed through the Alternate Academic Achievement Descriptors. Cut scores for performance levels were established in the summer of 2005. Harcourt Educational Measurement guided a standards setting process with the Department of Education in establishing alternate achievement levels for reading and math. South Dakota teachers participated in the standards setting procedure to provide teacher judgment.

Achievement Levels

The State of South Dakota has defined four levels of student achievement for the Alternate Academic Achievement Descriptors: These levels are listed beside their corresponding performance level for grade level expectations.

Advancing = Advanced

Applying = Proficient

Developing = Basic

Introducing = Below Basic

Alternate Academic Achievement Descriptors (Performance Descriptors)

Alternate achievement descriptors describe each performance level and were written for each grade for each standard. These descriptors indicate how a student at that level would be expected to perform on the Extended Content. Frequency, setting, and level of support are factors that

should be considered during instruction and assessment in order to discriminate increases in performance of skills at each level. **For the purpose of this document, support is defined as providing directed help or assistance through such means as encouragement, prompting, or by personally aiding the student to accomplish a task.**

Continuum of frequency, setting, and support.	
4	Students demonstrate knowledge and skills consistently across multiple settings without support.
3	Students demonstrate knowledge and skills more than once in more than one setting without support.
2	Students demonstrate knowledge and skills once in one setting with minimal support.
1	Students attempt to demonstrate knowledge and skills once in one setting with support.

Participating in the Extended Content

Examples:

1. The Reading level achievement standard 1.A.R. 1.1 reads as follows: Students are able to distinguish sounds and patterns (e.g./b/. for ball: word families./a/cat,).

1.1. First grade example of using a target skill: The student will recognize sounds that begin a word. The student will match a corresponding letter to a photo. Example: The student matches photo of ball to letter /b/. As the student progresses the student will identify the familiar word and properly pronounce the word. To build on this skill the student will identify an unfamiliar letter and its sound.

2. The Math level achievement standard 6.A.G.1.1 reads as follows: Students are able to identify and describe the characteristics of triangles and quadrilaterals.

2.1. Middle school example of using a target skill: When given six pictures of geometric shapes and prompted to indicate the triangle the student will name, touch, or point to the correct picture object independently when given adequate wait time. Once the student has identified the shape the student will classify and/or sort triangles by their side length.

3. The reading level achievement standard 11.A.R. 3.1 reads as follows: Recognize the influence of culture on written work.

3.1. High school example of using a target skill: Upon completion of having a literary book read aloud the class views cultural items from the era included in the book. As an activity to reinforce the information from the book the class views a slide show of museum exhibits. The student will contrast how is one thing different in your life compared to a character in the story?

These examples illustrate how students with disabilities participate in the Extended Content and general curriculum activities in which the learning standards are addressed.

South Dakota Math Goals and Indicators

ALGEBRA STANDARDS

Goal 1: Students will use the language of algebra to explore, describe, represent, and analyze number expressions and relations that represent variable quantities.

An understanding of patterns is basic to all mathematical thinking. Early experiences in learning about, understanding, and using patterns is foundational to algebraic reasoning. This algebraic reasoning encompasses the relationships among quantities, the use of symbols, the modeling of phenomena, and the mathematical study of change. From investigations of the properties of whole numbers to the use of mathematical models to represent quantitative relationships, algebra is linked to all areas of mathematics. A strong foundation in algebra is an expectation for every South Dakota high school graduate.

Indicator 1: *Use procedures to transform algebraic expressions.*

Indicator 2: *Use a variety of algebraic concepts and methods to solve equations and inequalities.*

Indicator 3: *Interpret and develop mathematical models.*

Indicator 4: *Describe and use properties and behaviors of relations, functions and inverses.*

GEOMETRY STANDARDS

Goal 2: Students will use the language of geometry to discover, analyze, and communicate geometric concepts, properties, and relationships.

Spatial sense is fundamental to mathematics both as a means of interpreting and representing the physical environment, and as a tool for the study of other topics in mathematics and science. The study of relationships among shapes and their properties is essential to their representation in abstract form and their translation into definitions, theorems, and proofs. The study of geometry allows students to use visualization, spatial reasoning, and geometric modeling to solve problems.

Indicator 1: *Use deductive and inductive reasoning to recognize and apply properties of geometric figures.*

Indicator 2: *Use properties of geometric figures to solve problems from a variety of perspectives.*

MEASUREMENT STANDARDS

Goal 3: Students will apply systems of measurement and use appropriate measurement tools to describe and analyze the world around them.

The study of measurement is essential to an understanding of the measurable attributes of objects and the units, systems, and processes of measurement that are used in personal and professional work. In the early grades, students learn to use these measurable attributes of objects to compare them for relative length, weight, and other characteristics. Students increase their precision in collecting information about the measurable attributes of objects as they encounter increasing demands for these skills. Measurement skills and the accurate use of measurement tools and formulas become critical in other mathematical applications including geometry and statistics.

Indicator 1: Apply measurement concepts in practical applications.

NUMBER SENSE STANDARDS

Goal 4: Students will develop and use number sense to investigate the characteristics of numbers in a variety of forms and modes of operation.

Number sense is the most basic skill of mathematics. From simple counting to the fluent use of computations skills, students use number sense to operationalize mathematics. An understanding of basic mathematics operations is critical to all other mathematical pursuits. Students should exhibit fluency in applying number sense to mathematical operations by the end of the elementary years. Students should be able to perform computation through mental calculation, estimation, and paper-pencil calculations.

Indicator 1: Analyze the structural characteristics of the real number system and its various subsystems. Analyze the concept of value, magnitude, and relative magnitude of real numbers.

Indicator 2: Apply number operations with real numbers and other number systems.

Indicator 3: Develop conjectures, predictions, or estimations to solve problems and verify or justify the results.

STATISTICS & PROBABILITY STANDARDS

Goal 5: Students will apply statistical methods to analyze data and explore probability for making decisions and predictions.

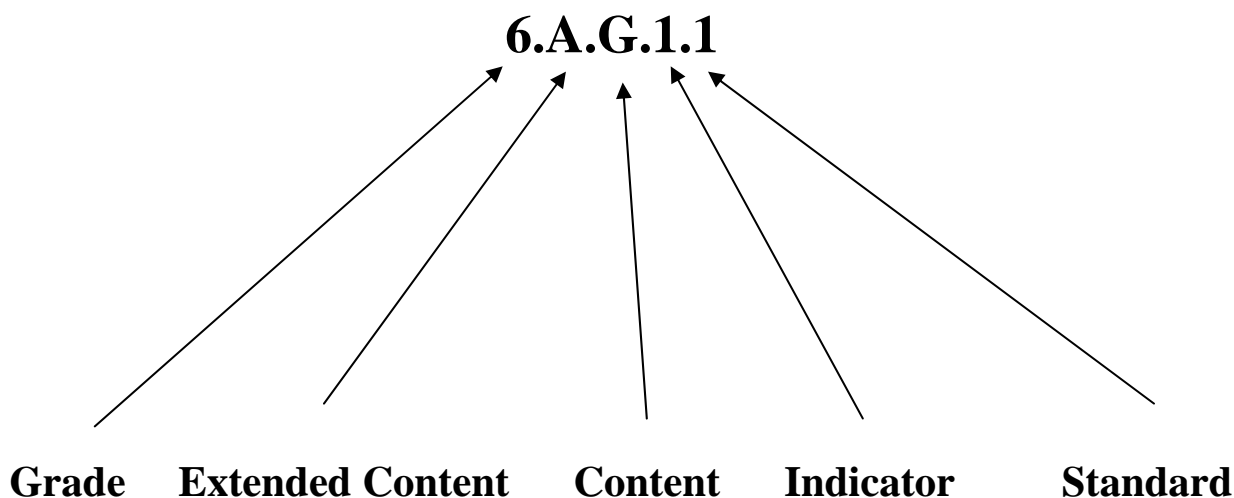
Statistics are encountered in every public forum from newspapers to consumer and employment data. The ability to define and investigate statistical questions and the probability of outcomes is essential to informed consumer decision-making. Students need the skills necessary to analyze and evaluate the barrage of statistical information they will encounter in their personal and professional lives. Through experiences in collecting and analyzing data, students learn to interpret and evaluate the usefulness of information.

Indicator 1: Use statistical models to gather, analyze, and display data to draw conclusions.

Indicator 2: Apply the concepts of probability to predict events/outcomes and solve problems.

Guide to the Numbering and Symbol System Used with the Extended Math Content

Extended Content is coded to cross reference content, indicators, and standards.



Grade indicates the grade level.

Extended content refers to the extension of the general content goals and indicators.

Content refers to content area of reading and the major areas of mathematics.

A for Algebra
G for Geometry
M for Measurement
N for Number Sense
S for Statistics and Probability

Indicator refers to the general education indicator for each goal or strand. Each goal or strand has one or more related indicators that describe key aspects of the goal or strand.

Standard refers to number of the Extended Content for the indicator. (Example: A.R.1.1, A.R.1.2, A.R.1.3) Each Extended Content describes what the students will know and be able to do. The standard is the essence of the general education grade level instruction and curriculum standards.